

## Letters to the Editor

## Commentary on the Impact of a 25-Cent-per-Drink Alcohol Tax Increase

To the Editor: The recent article by Daley et al.<sup>1</sup> advocates for large increases in alcohol taxes claiming both public health benefits from reduced consumption and that almost all of the cost would be borne by high-risk drinkers. The authors rely on the assumption that the majority of drinkers impose external costs on society and that the majority of drinkers would benefit if they reduced their consumption. Neither of these assumptions holds up under scrutiny.

The authors err in assuming that all drinkers would respond in the same way to higher prices; they assume that a single elasticity of demand ( $-0.51\%$ ) can be applied to all drinkers. However, research shows otherwise. Several studies, including the Wagenaar<sup>2</sup> study cited by the authors, show that heavy drinkers are much less responsive to higher prices than moderate drinkers. Ayyagari et al.<sup>3</sup> estimate that the top 24.6% of drinkers (measured in drinks per day, average of 1.879 drinks per day) were not particularly responsive to price increases, in contrast to the remainder of the drinking population (75.4%, average drinks per day of 0.129), which had a much higher elasticity of demand ( $-1.60$ ,  $p < 0.001$ ). But this undermines the Daley et al.<sup>1</sup> conclusions. As the Ayyagari paper notes:

... our results suggest that the heavier drinkers are least likely to respond to the higher taxes, thus neither the externality nor "internality" justification for higher alcohol taxes is supported by our results.<sup>3</sup>

Additionally, although the authors never answer the question *at risk of what?* their analytical framework relies on an unjustified notion that alcohol-related externalities are imposed on society by the 50.4% of the drinking population that they labeled high risk.

According to research that uses the DSM-IV definition of dependence, around 5% of the population is alcohol dependant.<sup>4</sup> Like my Nobel Laureate Professor James Buchanan, I am skeptical of studies that purport to measure external costs,<sup>5,6</sup> but if one wants to engage in that approach one would have to estimate who is responsible for those costs. Rivara et al.<sup>7</sup> estimate that that as many as 75% of intoxicated trauma patients are chronic alcoholics. From this metric it appears that a small subset of the identified high-risk drinkers are the likely source of a disproportionate share of the costs associated with alcohol. Yet imposing a tax on everyone to force alcohol abusers to pay for the perceived external cost of their

abuse means that the 95% of drinkers who are not alcohol dependent are footing the bill for the 5% who are not responsible.

The authors also fail to consider how higher taxes harm moderate drinkers. Not only will moderate drinkers lose the enjoyment of drinks not consumed, but many would lose the positive health benefits from moderate drinking as well. One should not attempt to engage in cost-benefit analysis while ignoring the benefits side of the equation. It appears that the Daley et al.<sup>1</sup> assumptions favoring higher alcohol taxes drive their results.

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## Author Response

We appreciate the opinions expressed by Professor Stringham. However, his assertion that increased alcohol taxes have little effect on the heaviest drinkers and therefore little public health benefit ignores a large body of evidence to the contrary. First and most importantly, high-risk drinkers account for the majority of alcohol-